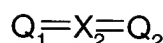


# 095184-10

1. A compound of the formula (Ia), (Ib) or (Ic)

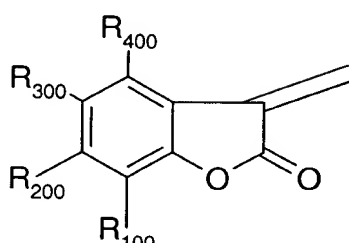


(lc)

in which

Q<sub>1</sub> is a benzofuran-2-one of the formula (IIa), and

Q<sub>2</sub> is a benzofuran-2-one of the formula (IIb)



(11b)

in which

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>100</sub>, R<sub>200</sub>, R<sub>300</sub> or R<sub>400</sub> independently of one another are hydrogen, halogen, hydroxyl, cyano, ether, nitro, an amine, amide, imine, urethane, sulfonamide, ester, carboxylic acid or sulfonic acid radical or carboxylic salt, sulfonic salt or substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkylthio, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkylthio, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, C<sub>6</sub>-C<sub>24</sub>aryloxy, C<sub>6</sub>-C<sub>24</sub>arylthio, A<sub>5</sub>-A<sub>18</sub>heteroaryl, A<sub>5</sub>-A<sub>18</sub>heteroaryloxy or A<sub>5</sub>-A<sub>18</sub>heteroarylthio, or

R<sub>1</sub> and R<sub>2</sub>, R<sub>2</sub> and R<sub>3</sub>, R<sub>3</sub> and R<sub>4</sub> or R<sub>100</sub> and R<sub>200</sub>, or R<sub>200</sub> and R<sub>300</sub>, R<sub>300</sub> and R<sub>400</sub>, independently of one another in each case together are divalent, substituted or unsubstituted radicals, such as polycyclic radicals or 1,3-butadien-1,4-ylene or -CH=CH-NH-, the two last radicals forming an additional fused-on 5- or 6-membered ring, and

X<sub>1</sub> is a hydrazone or imine radical, with the proviso that, if R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are hydrogen,

$$= \begin{array}{c} Q_3 \\ C \\ Q_4 \end{array}$$

or

Q<sub>3</sub> is not hydrogen and Q<sub>4</sub> is not methyl, 4-aminophenyl, 4-dimethylaminophenyl or -OCO-4-(1-chlorophenylene) if R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are hydrogen, or Q<sub>3</sub> is not hydrogen and Q<sub>4</sub> is not 4-aminophenyl if R<sub>1</sub> and R<sub>3</sub> are tert-C<sub>5</sub>H<sub>11</sub>alkyl, or Q<sub>3</sub> is not hydrogen and Q<sub>4</sub> is not 2-hydroxyphenyl if R<sub>1</sub> and R<sub>3</sub> are tert-butyl, or

Q<sub>3</sub> is not hydrogen and Q<sub>4</sub> is not a primary or secondary amine radical if R<sub>3</sub> is hydrogen, methoxy or hydroxyl and R<sub>1</sub>, R<sub>2</sub> and R<sub>4</sub> are hydrogen, or Q<sub>3</sub> is not hydrogen and Q<sub>4</sub> is not a secondary amine radical if R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are hydrogen, and

$$\left[ \begin{array}{cc} \text{Q}_5 & \text{Q}_6 \\ | & | \\ \text{C} - \text{X}_3 - & \text{C} \end{array} \right]$$

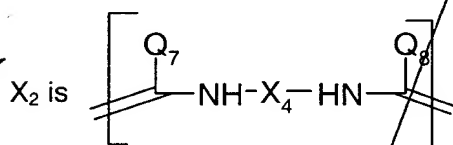
X<sub>3</sub> is a single bond, unsubstituted or substituted C<sub>6</sub>-C<sub>24</sub>arylene, A<sub>5</sub>-A<sub>18</sub>heteroarylene, 1,2-phenylene, 1,3-phenylene, 1,4-phenylene or naphthylene, or a tetravalent

polyether, polyimine, polyamine radical, or bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene, C<sub>2</sub>-C<sub>24</sub>alkenylene, in which bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene or C<sub>2</sub>-C<sub>24</sub>alkenylene can be interrupted by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR<sub>44</sub>R<sub>42</sub>-, -CO-, -COO-, -OCO-, -NR<sub>42</sub>CO-, -CONR<sub>42</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sub>42</sub>-, in which

R<sub>42</sub> and R<sub>44</sub> independently of one another are hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl or A<sub>5</sub>-A<sub>18</sub>heteroaryl, and

Q<sub>5</sub> and Q<sub>6</sub> independently of one another are hydrogen, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryloxy, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkylthio, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkylthio, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>6</sub>-C<sub>24</sub>aryloxy, C<sub>6</sub>-C<sub>24</sub>arylthio or A<sub>5</sub>-A<sub>18</sub>heteroaryl, A<sub>5</sub>-A<sub>18</sub>heteroaryloxy, A<sub>5</sub>-A<sub>18</sub>heteroarylthio, or

SUB  
a'7

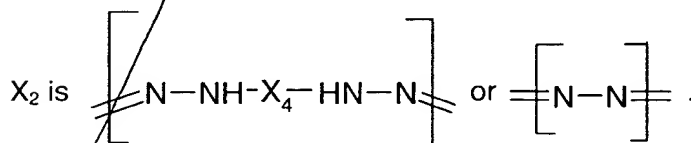


in which

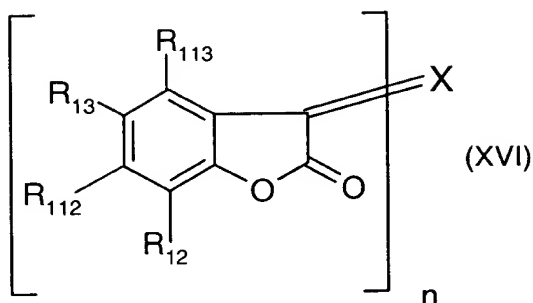
Q<sub>7</sub> and Q<sub>8</sub> independently of one another are Q<sub>5</sub> or Q<sub>6</sub>, and

X<sub>4</sub> is C<sub>6</sub>-C<sub>24</sub>arylene, A<sub>5</sub>-A<sub>18</sub>heteroarylene, a polymethylenide or divalent polyether, polyimine, polyamine radical, or bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene, C<sub>2</sub>-C<sub>24</sub>alkenylene, in which bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene or C<sub>2</sub>-C<sub>24</sub>alkenylene can be interrupted by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR<sub>44</sub>R<sub>42</sub>-, -CO-, -COO-, -OCO-, -NR<sub>42</sub>CO-, -CONR<sub>42</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sub>42</sub>-,

or



Sub B2



in which

$n$  is 1 or 2, and

if  $n$  is 1

X is  $X_1$  as defined in claim 1, and

if  $n$  is 2

X is  $X_2$  as defined in claim 1, and

R<sub>12</sub>, R<sub>112</sub>, R<sub>13</sub> and R<sub>113</sub> independently of one another are hydrogen, halogen, OH, NO<sub>2</sub>, R<sub>14</sub>, OR<sub>14</sub>, OC<sub>9</sub>-C<sub>18</sub>alkyl or SC<sub>9</sub>-C<sub>18</sub>alkyl, in which

~~R<sub>14</sub> is C<sub>1</sub>-C<sub>24</sub>alkyl which is unsubstituted or substituted one or more times by oxo or by COO<sup>-</sup>X<sub>5</sub><sup>+</sup> and which can be uninterrupted or interrupted one or more times by O, N and/or S, or is C<sub>7</sub>-C<sub>18</sub>aralkyl or C<sub>6</sub>-C<sub>12</sub>aryl unsubstituted or substituted one or more times by halogen, OR<sub>16</sub>, NR<sub>16</sub>R<sub>17</sub>, COOR<sub>16</sub>, CONR<sub>16</sub>R<sub>17</sub>, NR<sub>18</sub>COR<sub>16</sub> or NR<sub>18</sub>COOR<sub>16</sub>.~~

$X_5^+$  is a cation  $H^+$ ,  $Na^+$ ,  $K^+$ ,  $Mg^{++}$ ,  $Ca^{++}$ ,  $Zn^{++}$ ,  $Al^{+++}$ , or  $[NR_{16}R_{17}R_{18}R_{19}]^+$ , and

~~R<sub>16</sub> and R<sub>17</sub> independently of one another are hydrogen, C<sub>6</sub>-C<sub>12</sub>aryl, C<sub>7</sub>-C<sub>10</sub>aralkyl, or C<sub>1</sub>-C<sub>8</sub>alkyl which is unsubstituted or substituted one or more times by halogen, hydroxyl or C<sub>1</sub>-C<sub>4</sub>alkoxy, or~~

~~R<sub>16</sub> and R<sub>17</sub> in NR<sub>16</sub>R<sub>17</sub> or CONR<sub>16</sub>R<sub>17</sub>, together with the nitrogen atom connecting them, are pyrrolidine, piperidine, piperazine or morpholine each of which is unsubstituted or substituted from one to four times by C<sub>1</sub>-C<sub>4</sub>alkyl,~~

and R<sub>18</sub> and R<sub>19</sub> independently of one another are hydrogen, C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>6</sub>-C<sub>10</sub>aryl or C<sub>6</sub>-C<sub>12</sub>aralkyl,

~~R<sub>12</sub> and R<sub>112</sub>, R<sub>112</sub> and R<sub>13</sub>, R<sub>13</sub> and R<sub>113</sub> can also independently of one another each~~

h

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if  $n$  is 1

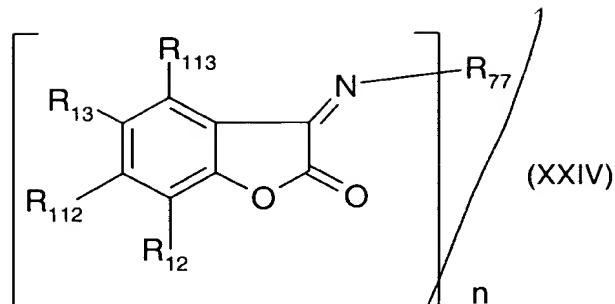
R<sub>63</sub> is substituted or unsubstituted C<sub>1</sub>-C<sub>12</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl, C<sub>6</sub>-C<sub>12</sub>aryl, C<sub>7</sub>-C<sub>13</sub>aralkyl, or A<sub>5</sub>/A<sub>12</sub>heteroaryl, and

R<sub>63</sub> is unsubstituted or substituted C<sub>6</sub>-C<sub>18</sub>arylene, A<sub>5</sub>-A<sub>18</sub>heteroarylene, C<sub>5</sub>-C<sub>6</sub>cycloalkyl or a divalent polymethylidene, polyether, polyimine, polyamine radical, or bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene, C<sub>2</sub>-C<sub>24</sub>alkenylene, in which bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene or C<sub>2</sub>-C<sub>24</sub>alkenylene can be interrupted and/or connected to one another by a direct bond or by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR<sub>44</sub>R<sub>42</sub>-, -CO-, -COO-, -OCO-, -NR<sub>42</sub>CO-, -CONR<sub>42</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sub>42</sub>-.

or

a compound of the formula (XXIV)

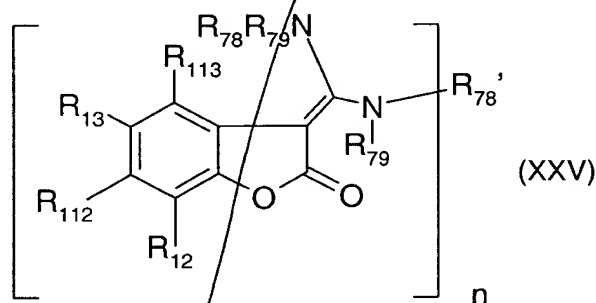
[illegible]



in which, if  $n$  is 1,

R<sub>77</sub> is substituted or unsubstituted C<sub>1</sub>-C<sub>12</sub>alkyl, C<sub>5</sub>-C<sub>6</sub>cycloalkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl, C<sub>6</sub>-C<sub>12</sub>aryl, C<sub>7</sub>-C<sub>13</sub>aralkyl or A<sub>5</sub>-A<sub>12</sub>heteroaryl, with the proviso that in formula (XXIV), if R<sub>12</sub>, R<sub>112</sub>, R<sub>13</sub> or R<sub>113</sub> are hydrogen, R<sub>77</sub> is not unsubstituted phenylimine or 4-dimethylaminephenylimine,  
or

a compound of the formula (X~~X~~V)



in which

if  $n$  is 1

R<sub>78</sub>, R<sub>78</sub>' and R<sub>79</sub> independently of one another are hydrogen or substituted or unsubstituted C<sub>1</sub>-C<sub>12</sub>alkyl, C<sub>1</sub>-C<sub>12</sub>alkoxy, C<sub>1</sub>-C<sub>12</sub>alkylthio, C<sub>5</sub>-C<sub>6</sub>cycloalkoxy, C<sub>5</sub>-C<sub>6</sub>cycloalkylthio, C<sub>6</sub>-C<sub>24</sub>aryloxy, C<sub>6</sub>-C<sub>24</sub>arylthio or A<sub>5</sub>-A<sub>12</sub>heteroaryloxy, A<sub>5</sub>-A<sub>12</sub>heteroarylthio, C<sub>5</sub>-C<sub>6</sub>cycloalkyl, C<sub>2</sub>-C<sub>12</sub>alkenyl, C<sub>6</sub>-C<sub>12</sub>aryl, C<sub>7</sub>-C<sub>13</sub>aralkyl, or A<sub>5</sub>-A<sub>12</sub>heteroaryl, or dependently of one another are hydrogen, and

if  $n$  is 2

$R_{78}$  and  $R_{79}$  are as defined above when  $n$  is 1, and

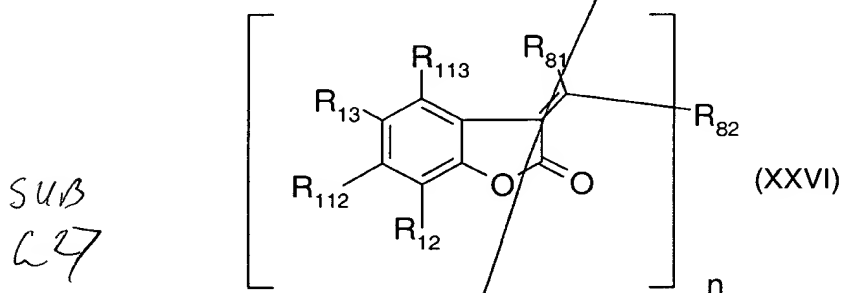
R<sub>78</sub>' is a direct bond or substituted or unsubstituted C<sub>6</sub>-C<sub>24</sub>arylène, A<sub>5</sub>-A<sub>18</sub>heteroarylène, C<sub>5</sub>-C<sub>12</sub>cycloalkyl or bi(C<sub>6</sub>-C<sub>24</sub>)arylène, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylène, C<sub>2</sub>-C<sub>24</sub>alkenylène, in which bi(C<sub>6</sub>-C<sub>24</sub>)arylène, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylène, C<sub>2</sub>-C<sub>24</sub>alkenylène can be interrupted

by a direct bond or by one or more intermediate units such as  $-\text{CH}=\text{CH}-$ ,  $-\text{CH}=\text{N}-$ ,  $-\text{N}=\text{N}-$ ,  $-\text{CR}_{44}\text{R}_{42}-$ ,  $-\text{CO}-$ ,  $-\text{COO}-$ ,  $-\text{OCO}-$ ,  $-\text{NR}_{42}\text{CO}-$ ,  $-\text{CONR}_{42}-$ ,  $-\text{O}-$ ,  $-\text{S}-$ ,  $-\text{SO}-$ ,  $-\text{SO}_2-$  or  $-\text{NR}_{42}-$ ,

in which

$\text{R}_{42}$  and  $\text{R}_{44}$  independently of one another are hydrogen, substituted or unsubstituted  $\text{C}_1\text{-C}_{24}$ alkyl,  $\text{C}_5\text{-C}_{12}$ cycloalkyl,  $\text{C}_2\text{-C}_{24}$ alkenyl,  $\text{C}_6\text{-C}_{24}$ aryl,  $\text{C}_7\text{-C}_{25}$ aralkyl, or  $\text{A}_5\text{-A}_{18}$ heteroaryl, or

a compound of the formula (XXVI)



in which

if  $n$  is 1

$\text{R}_{81}$  and  $\text{R}_{82}$  are  $\text{C}_6\text{-C}_{12}$ aryl, if  $\text{R}_{12}$ ,  $\text{R}_{112}$ ,  $\text{R}_{13}$  or  $\text{R}_{113}$  are not hydrogen, or

$\text{R}_{81}$  and  $\text{R}_{82}$  independently of one another are hydrogen or unsubstituted or substituted  $\text{C}_1\text{-C}_{12}$ alkyl,  $-\text{CO}-(\text{C}_1\text{-C}_{24}\text{alkyl})$ ,  $-\text{CO-O}-(\text{C}_1\text{-C}_{24}\text{alkyl})$ ,  $\text{C}_6\text{-C}_{12}$ aryloxy,  $\text{C}_1\text{-C}_{12}$ alkoxy,  $\text{C}_1\text{-C}_{12}$ alkylthio,  $\text{C}_5\text{-C}_{12}$ cycloalkyl,  $\text{C}_5\text{-C}_{12}$ cycloalkoxy,  $\text{C}_2\text{-C}_{12}$ alkenyl, a primary or secondary amine radical,  $\text{C}_6\text{-C}_{18}$ aryl,  $-\text{CO-O}-(\text{C}_6\text{-C}_{24}\text{aryl})$ ,  $-\text{CO}-(\text{C}_6\text{-C}_{24}\text{aryl})$ ,  $\text{C}_6\text{-C}_{18}$ aryloxy,  $\text{C}_6\text{-C}_{18}$ arylthio or  $\text{A}_5\text{-A}_{12}$ heteroaryl,  $\text{A}_5\text{-A}_{12}$ heteroaryloxy,  $\text{A}_5\text{-A}_{12}$ heteroarylthio, or  $\text{R}_{81}$  and  $\text{R}_{82}$  together are a lactam, quinomethylene, hydantoin, acenaphthenequinone, azlactone, pyrazolonyl, barbituric acid, isoindolinone or isoindoline radical,

with the proviso that  $\text{R}_{81}$  and  $\text{R}_{82}$  are not phenyl or

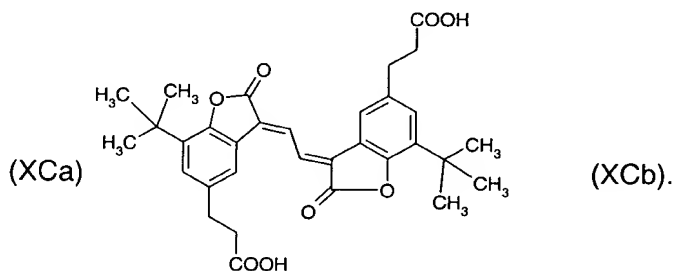
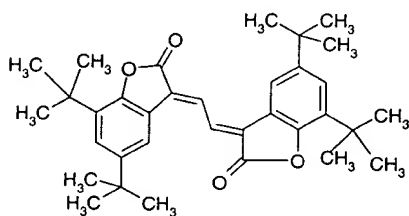
$\text{R}_{81}$  is not hydrogen and  $\text{R}_{82}$  is not methyl, 4-aminophenyl, 4-dimethylaminophenyl or  $-\text{OCO-4}-(1\text{-chlorophenylene})$  if  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$  and  $\text{R}_4$  are hydrogen, or  $\text{R}_{81}$  is not hydrogen and  $\text{R}_{82}$  is not 4-aminophenyl if  $\text{R}_1$  and  $\text{R}_3$  are  $\text{tert-C}_5\text{H}_{11}$ alkyl, or  $\text{R}_{81}$  is not hydrogen and  $\text{R}_{82}$  is not 2-hydroxyphenyl if  $\text{R}_1$  and  $\text{R}_3$  are  $\text{tert-butyl}$ , or

$R_{81}$  is not hydrogen and  $R_{82}$  is not a primary or secondary amine radical if  $R_3$  is hydrogen, methoxy or hydroxyl and  $R_1$ ,  $R_2$  and  $R_4$  are hydrogen, or  $R_{81}$  is not hydrogen and  $R_{82}$  is not a secondary amine radical if  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are hydrogen, and

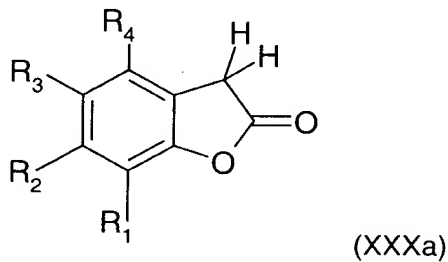
if  $n$  is 2

$R_{82}$  is a single bond, an unsubstituted or substituted  $C_6$ - $C_{18}$ arylene, especially 1,2-phenylene, 1,3-phenylene, 1,4-phenylene or naphthylene or  $(A_5-A_{18})$ heteroarylene or  $bi(C_6-C_{24})$ arylene, especially biphenylene,  $bi(A_5-A_{18})$ heteroarylene,  $C_2$ - $C_{24}$ alkenylene, in which  $bi(C_6-C_{24})$ arylene,  $bi(A_5-A_{18})$ heteroarylene or  $C_2$ - $C_{24}$ alkenylene, can be interrupted by one or more intermediate units such as  $-CH=CH-$ ,  $-CH=N-$ ,  $-N=N-$ ,  $-CR_{44}R_{42}-$ ,  $-CO-$ ,  $-COO-$ ,  $-OCO-$ ,  $-NR_{42}CO-$ ,  $-CONR_{42}-$ ,  $-O-$ ,  $-S-$ ,  $-SO-$ ,  $-SO_2-$  or  $-NR_{42}-$ , in which  $R_{42}$  and  $R_{44}$  independently of one another are hydrogen, substituted or unsubstituted  $C_1$ - $C_{24}$ alkyl,  $C_5$ - $C_{12}$ cycloalkyl,  $C_2$ - $C_{24}$ alkenyl,  $C_6$ - $C_{24}$ aryl,  $C_7$ - $C_{25}$ aralkyl, or  $A_5$ - $A_{18}$ heteroaryl.

4. A compound of the formula (XXVI) according to any one of claims ~~1, 2 and 3~~ having the formula (XCa) or (XCb)



5. A process for preparing a benzofuran-2-one (Ia) according to claim 1, which comprises reacting benzofuran-2-one (XXXa)



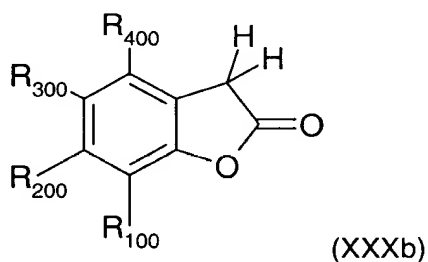
(X)



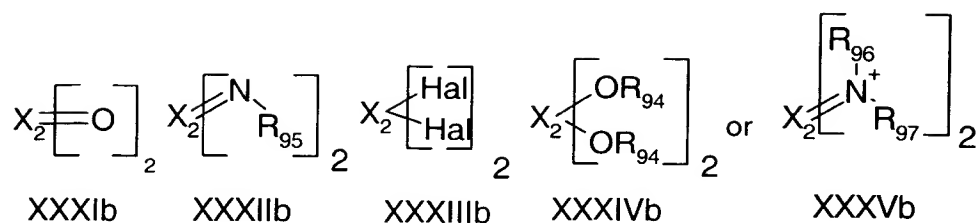
$$\begin{array}{ccccc}
 \text{X}_1=\text{O} & \text{X}_1=\text{N}-\text{R}_{95} & \text{Hal}-\text{X}_1-\text{Hal} & \text{R}_{94}\text{O}-\text{X}_1-\text{OR}_{94} & \text{X}_1=\text{N}^+-\text{R}_{97} \\
 \text{XXXIa} & \text{XXXIIa} & \text{XXXIIIa} & \text{XXXIVa} & \text{XXXVa}
 \end{array}$$

X<sub>1</sub> is X<sub>7</sub> and corresponds to the definition in claim 1 for X<sub>1</sub>, with the proviso that X<sub>7</sub> is not a hydrazone or imine radical.

6. A process for preparing a benzofuran-2-one (Ib) or (Ic) according to claim 1, which comprises reacting benzofuran-2-one (XXXa), or (XXXa) and a compound of the formula (XXXb)

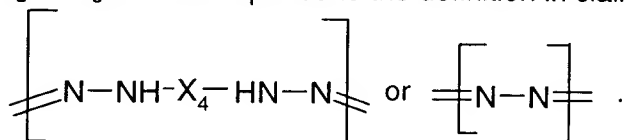


with a compound of the formulae (XXXIb), (XXXIIb), (XXXIIIb), (XXXIVb) or (XXXVb)

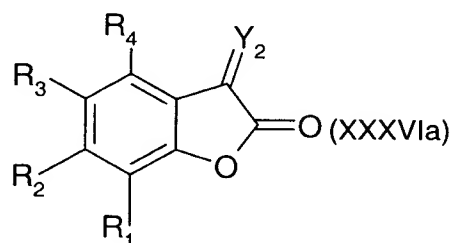


in which

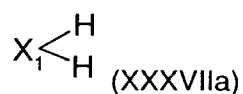
X<sub>2</sub> is X<sub>8</sub> and corresponds to the definition in claim for X<sub>2</sub>, with the proviso that X<sub>8</sub> is not



7. A process for preparing a benzofuran-2-one (Ia) according to claim 1, which comprises reacting 3-oxobenzofuran-2-one (XXXVIa)



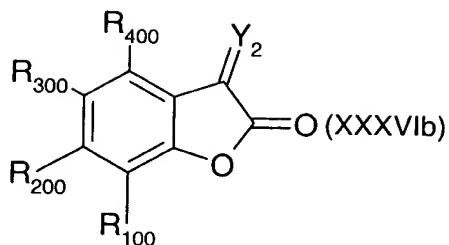
with a compound of the formula (XXXVIIa)



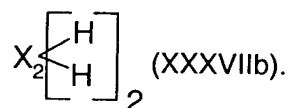
in which,

Y<sub>2</sub> is O, NR<sub>95</sub> or N<sup>+</sup>(R<sub>96</sub>R<sub>97</sub>), NO or two chlorine atoms, the chlorine atoms each forming a single bond with the benzofuran-2-one (Ia).

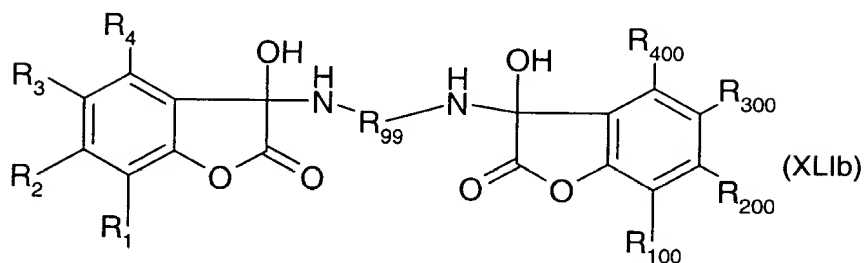
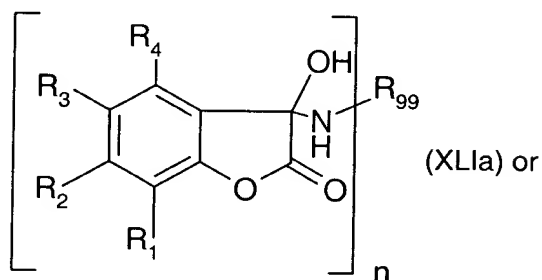
8. A process for preparing a benzofuran-2-one (Ib) or (Ic) according to claim 1, which comprises reacting 3-oxobenzofuran-2-one (XXXVIa) or (XXXVIa) and a compound of the formula (XXXVIb)



with a compound of the formula (XXXVIIb)



9. An aminohydroxy compound of the formula (XLla) or (XLlb)



in which

n is 1 or 2, and

if n is 1

R<sub>99</sub> is hydrogen or substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl or A<sub>5</sub>-A<sub>18</sub>heteroaryl, and

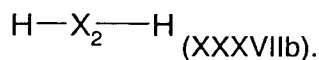
if n is 2

R<sub>99</sub> is a direct bond, C<sub>6</sub>-C<sub>24</sub>arylene, A<sub>5</sub>-A<sub>18</sub>heteroarylene, C<sub>5</sub>-C<sub>12</sub>cycloalkyl or bi(C<sub>6</sub>-

R<sub>42</sub> and R<sub>44</sub> independently of one another are hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub> alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, or A<sub>5</sub>-A<sub>18</sub>heteroaryl.

- $$\text{H}-\text{X}_1-\text{H} \quad (\text{XXXVIIa})$$

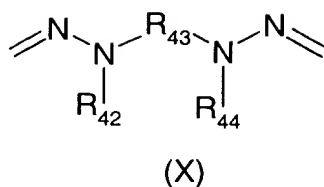
reacting 3-oxobenzofuran-2-one (XXXVla) or (XXXVla) and (XXXVIb) of claim 8 with a compound of the formula (XXXVIIb)



- $$\begin{array}{c} \text{=N}-\text{N}-\text{R}_{28} \\ | \\ \text{R}_{29} \end{array} \quad (\text{IV})$$

R<sub>28</sub> and R<sub>29</sub> independently of one another are substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, A<sub>5</sub>-A<sub>18</sub>heteroaryl or dependently of one another are hydrogen,

and  $X_2$  is a compound of the formula (X)



in which

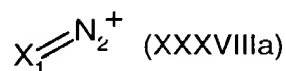
R<sub>42</sub> and R<sub>44</sub> independently of one another are substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub> alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, A<sub>5</sub>-A<sub>18</sub>heteroaryl or dependently of one another are hydrogen, and

R<sub>43</sub> is a direct bond, C<sub>6</sub>-C<sub>24</sub>arylene, A<sub>5</sub>-A<sub>18</sub>heteroarylene, C<sub>5</sub>-C<sub>12</sub>cycloalkyl or bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene, C<sub>2</sub>-C<sub>24</sub>alkenylene, in which bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene, C<sub>2</sub>-C<sub>24</sub>alkenylene can be connected to one another and/or interrupted by a direct bond or by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR<sub>44</sub>R<sub>42</sub>-, -CO-, -COO-, -OCO-, -NR<sub>42</sub>CO-, -CONR<sub>42</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sub>42</sub>-,

in which

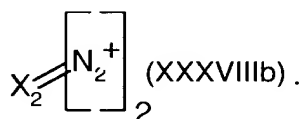
R<sub>42</sub> and R<sub>44</sub> independently of one another are hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub> alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, or A<sub>5</sub>-A<sub>18</sub>heteroaryl,

by coupling diazotized amines with coupling components in an aqueous medium, which comprises reacting benzofuran-2-one (XXXa) of claim 4 with a diazonium salt of the formula (XXXVIIIa)



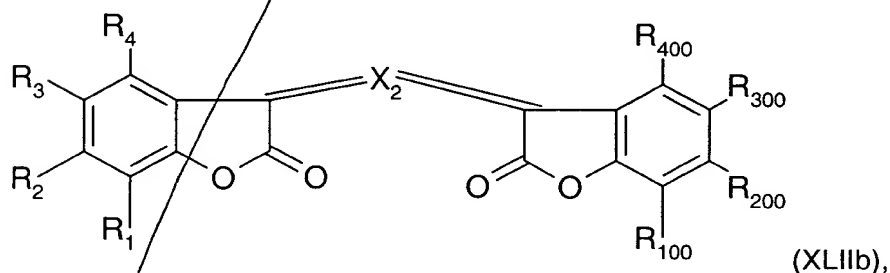
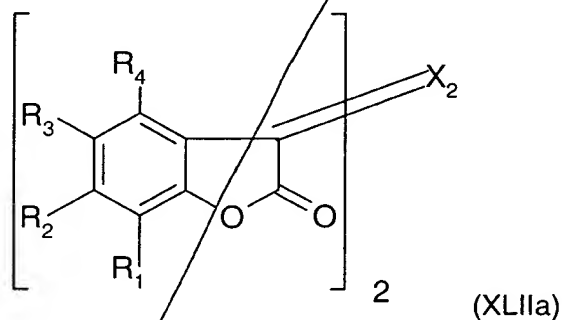
or

reacting benzofuran-2-one (XXXa), or (XXXa) and (XXXb) of claim 5 with a diazonium salt of the formula (XXXVIIIb)



12. A composition consisting of from 2 to 10, preferably 2 or 3, compounds of the formulae (Ia), (Ib) and/or (Ic) according to claim 1, and/or (XLIa) and/or (XLIb) according to claim 9, and/or dimeric benzofuran-2-ones of the formulae (XLIIa) and/or (XLIIb)

SUB  
a3  
or



in which

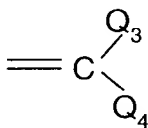
$X_2$  is  $(C_6-C_{24})$ arylene,  $(A_5-A_{18})$ heteroarylene or a divalent polymethylidene, polyether, polyimine, polyamine radical, or  $bi(C_6-C_{24})$ arylene or  $bi(A_5-A_{18})$ heteroarylene, the  $bi(C_6-C_{24})$ arylene or  $bi(A_5-A_{18})$ heteroarylene radical being attached directly or via a substituted or unsubstituted carbon, nitrogen, oxygen or  $(-N=N-)$ -diradical.

13. A composition of matter comprising a high molecular weight organic material and at least one compound of the formulae (Ia), (Ib), (Ic) according to claim 1

in which

$X_1$  is  $X_{10}$ , where  $X_{10}$  is a substituted or unsubstituted hydrazone or imine radical, or

is a methylene radical



in which

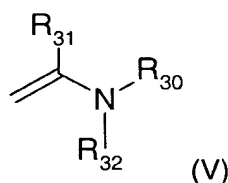
Q<sub>3</sub> and Q<sub>4</sub> are Q<sub>6</sub> and Q<sub>7</sub> and independently of one another are hydrogen or substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, -CO-(C<sub>1</sub>-C<sub>24</sub>alkyl), -CO-O-(C<sub>1</sub>-C<sub>24</sub>alkyl), C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkylthio, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkylthio, C<sub>2</sub>-C<sub>24</sub>alkenyl, a primary or secondary amine radical, C<sub>6</sub>-C<sub>24</sub>aryl, -CO-O-(C<sub>6</sub>-C<sub>24</sub>aryl), -CO-(C<sub>6</sub>-C<sub>24</sub>aryl), C<sub>6</sub>-C<sub>24</sub>aryloxy, C<sub>6</sub>-C<sub>12</sub>arylthio, C<sub>7</sub>-C<sub>25</sub>aralkyl or A<sub>5</sub>-A<sub>18</sub>heteroaryl, or

Q<sub>3</sub> and Q<sub>4</sub> together are a lactam, quinomethylene, hydantoin, acenaphthenequinone, azlactone, pyrazolonyl, barbituric acid, isoindolinone or isoindoline radical,

or

a composition according to claim 12, (XLla) or (XLlb) according to claim 9, in a colouring effective amount.

14. A process for preparing a benzofuran-2-one (Ia), (Ib) or (Ic) in which X<sub>1</sub> is X<sub>10</sub> according to claim 13, and X<sub>1</sub> is a compound of the formula (V)

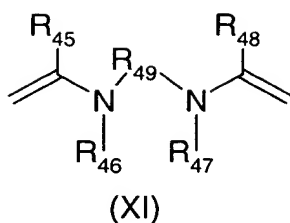


in which

R<sub>31</sub> is hydrogen or -NR<sub>89</sub>R<sub>90</sub>, in which

R<sub>30</sub>, R<sub>32</sub>, R<sub>89</sub> and R<sub>90</sub> independently of one another are hydrogen, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkylthio, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkylthio, C<sub>5</sub>-C<sub>24</sub>aryloxy, -thio or A<sub>5</sub>-A<sub>18</sub>heteroaryloxy, -thio, or are C<sub>6</sub>-C<sub>24</sub>aryl-substituted secondary or tertiary amine or C<sub>6</sub>-C<sub>24</sub>aryl, and

where X<sub>2</sub> is of the formula (XI)



in which

R<sub>46</sub> and R<sub>47</sub> independently of one another are substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, or A<sub>5</sub>-A<sub>18</sub>heteroaryl, and

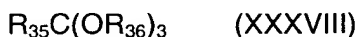
R<sub>45</sub> and R<sub>48</sub> independently of one another are hydrogen, C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>1</sub>-C<sub>24</sub>alkylthio, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkylthio, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>5</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, C<sub>5</sub>-C<sub>24</sub>aryloxy, -thio or A<sub>5</sub>-A<sub>18</sub>heteroaryl, A<sub>5</sub>-A<sub>18</sub>heteroaryloxy, -thio, and

R<sub>49</sub> is a direct bond, C<sub>6</sub>-C<sub>24</sub>arylène, A<sub>5</sub>-A<sub>18</sub>heteroarylène, C<sub>5</sub>-C<sub>12</sub>cycloalkyl or bi(C<sub>6</sub>-C<sub>24</sub>)arylène, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylène, C<sub>2</sub>-C<sub>24</sub>alkenylène, in which bi(C<sub>6</sub>-C<sub>24</sub>)arylène, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylène, C<sub>2</sub>-C<sub>24</sub>alkenylène can be connected to one another and/or interrupted by a direct bond or by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR<sub>44</sub>R<sub>42</sub>-, -CO-, -COO-, -OCO-, -NR<sub>42</sub>CO-, -CONR<sub>42</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sub>42</sub>-.

in which

R<sub>42</sub> and R<sub>44</sub> independently of one another are hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub> alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, or A<sub>5</sub>-A<sub>18</sub>heteroaryl,

by formylation and subsequent reaction with an amine, which comprises reacting benzofuran-2-one (XXXa) of claim 4 with a formylating reagent of the formula (XXXVIII)

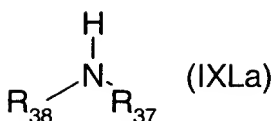


in which

R<sub>35</sub> and R<sub>36</sub> independently of one another are substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, or A<sub>5</sub>-A<sub>18</sub>heteoaryl

and a compound of the formula (IXLa)



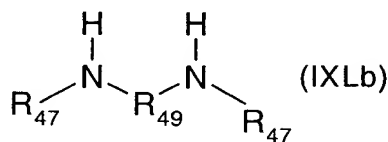


in which

R<sub>37</sub> and R<sub>38</sub> independently of one another are hydrogen or substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>1</sub>-C<sub>24</sub>alkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkoxy, C<sub>5</sub>-C<sub>12</sub>cycloalkylthio, C<sub>5</sub>-C<sub>6</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub>alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>5</sub>-C<sub>24</sub>aryloxy, C<sub>5</sub>-C<sub>24</sub>arylthio, C<sub>7</sub>-C<sub>25</sub>aralkyl, a primary or secondary amine radical, A<sub>5</sub>-A<sub>18</sub>heteroaryl, A<sub>5</sub>-A<sub>18</sub>heteroaryloxy or A<sub>5</sub>-A<sub>18</sub>heteroarylthio.

benzofuran-2-one (XXXa) or (XXXa) and (XXXb) of claim 5 with a formylating reagent of the formula (XXXVIII)

and a compound of the formula (IXLb)



in which

R<sub>46</sub> and R<sub>47</sub> independently of one another are hydrogen or substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub> alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl, or A<sub>5</sub>-A<sub>18</sub>heteroaryl, divalent polyether, polyimine, polyamine radical, bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene, C<sub>2</sub>-C<sub>24</sub>alkenylene, in which bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene or C<sub>2</sub>-C<sub>24</sub>alkenylene can be interrupted by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR<sub>44</sub>R<sub>42</sub>-, -CO-, -COO-, -OCO-, -NR<sub>42</sub>CO-, -CONR<sub>42</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sub>42</sub>-.

in which

R<sub>42</sub> and R<sub>44</sub> independently of one another are hydrogen, substituted or unsubstituted C<sub>1</sub>-C<sub>24</sub>alkyl, C<sub>5</sub>-C<sub>12</sub>cycloalkyl, C<sub>2</sub>-C<sub>24</sub> alkenyl, C<sub>6</sub>-C<sub>24</sub>aryl, C<sub>7</sub>-C<sub>25</sub>aralkyl or A<sub>5</sub>-A<sub>18</sub>heteroaryl, and

R<sub>49</sub> is a direct bond or substituted or unsubstituted C<sub>6</sub>-C<sub>24</sub>arylene, A<sub>5</sub>-A<sub>18</sub>heteroarylene, C<sub>5</sub>-C<sub>12</sub>cycloalkylene or bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene, C<sub>2</sub>-C<sub>24</sub>alkenylene, in which bi(C<sub>6</sub>-C<sub>24</sub>)arylene, bi(A<sub>5</sub>-A<sub>18</sub>)heteroarylene or C<sub>2</sub>-C<sub>24</sub>alkenylene can be interrupted by one or more intermediate units such as -CH=CH-, -CH=N-, -N=N-, -CR<sub>44</sub>R<sub>42</sub>-, -CO-, -COO-, -OCO-, -NR<sub>42</sub>CO-, -CONR<sub>42</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sub>42</sub>-.

- [illegible]